REMARKS

As a preliminary matter, claim 44 was previously canceled. Therefore, this claim is not now pending, as indicated in the Office Action.

Claims 1-17, 31-38, 41 and 43-44 stand rejected under 35.U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35.U.S.C. § 103 (a) as being obvious over Yamanaka et al. (US 2002/0064689). In response, applicants amended independent claims 1 and 41 to clarify that a Pt content of the magnetic layer and atomic % is less than a Pt content of the ferromagnetic layer in atomic %; and that the ferromagnetic layer and magnetic layer are made from materials that include CoCrPt and a CoCrPt-M alloy, where M is an element or alloy selected from B, Mo, Nb, Ta, W and Cu.

Applicants amended independent claims 31 and 43 to clarify that the first and second ferromagnetic layers and magnetic layer are formed from the material of CoCrPt and CoCrPt-M alloy, where M is an element or alloy of B, Mo, Nb, Ta, W and Cu; and a Pt content of the first ferromagnetic layer is smaller than a Pt content of the magnetic layer by at least 7 atomic % or on the order of the atomic % of impurities. Applicants respectfully traverse the §§ 102(e)/103(a) rejections based on these amendments.

In paragraph 5 on pages 5-6 of the outstanding Office Action, the Examiner refers to Figs. 11 and 14 of the Yamanaka and asserts that the recording structure taught by Yamanaka is substantially the same in structure and composition as that of applicants. The Examiner asserts that since the structure taught by Yamanaka exhibits the same magnetic properties as the present invention, as evidenced by the hysteresis curves and the figures,

Yamanaka therefore inherently meets the limitation of the claims of the present application directed to dynamic coercivity. However, the claims of the present application, as currently amended, more clearly recite structural differences between the present invention and the structure taught by Yamanaka. Therefore, since the structures are different, the inherent properties are also necessarily different including the dynamic coercivities.

Figs. 11 and 14 of Yamanaka correspond to Fig. 1 of the present application, and show static and magnetic characteristics or properties (see p. 16, lines 28-32 of the present application). The magnetization curves shown in Figs. 11 and 14 of Yamanaka are of magnetic characteristics that are obtained when the relationship $H_{c1} < H_{c2}$ is satisfied at the time T_a in Fig. 2 or Fig. 3 of the present invention, and merely are static magnetic characteristics.

In contrast, one of the characterizing features of the present invention is that dynamic magnetic characteristics or properties such as those shown in Fig. 2 of the present application are obtained. The present invention not only improves the S/N ratio by maintaining the relationship $H_{c1} < H_{c2}$ in the static magnetic characteristics (T_A), but also improves the overwrite performance at the time of the writing (i.e., magnetic field switching time of 1 nano-second or less) and the NLTS performance by obtaining the relationship $H_{c1} > H_{c2}$ in a dynamic magnetic characteristics (T_B). In order to obtain the above effects as taught by applicants, it is necessary for a curve showing the relationships of the magnetic field switching time and the dynamic coercivity of the magnetic layer and the ferromagnetic layer to intersect.

In the present invention, the compositions of the ferromagnetic layer and the magnetic layer are CoCrPt or CoCrPt-M (M = B, Mo, Nb, Ta, W, Cu), and the Pt content of the magnetic layer is smaller than the Pt content of the ferromagnetic layer.

In Fig. 1 of Yamanaka, the compositions of the recording layer and the magnetization stabilizing layer are both $Co_{64}Cr_{20}Pt_{12}B_4$, and the Pt content in At.% is 12 At.% (i.e., the same) for both the recording layer and the magnetization stabilizing layer.

In addition, in Fig. 13 of Yamanaka, the compositions of the recording layer and the ferromagnetic atom-rich layer are $Co_{64}Cr_{20}Pt_{12}B_4$ and $Co_{83}Cr_{20}Pt_{17}B$, respectively, and the Pt content difference in At.% is 7 At.% or less between the recording layer and the ferromagnetic atom-rich layer.

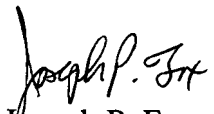
Because of these structural differences between the present invention and Yamanaka, the characteristics shown in FIG. 2 that are unique to the present invention are only obtainable by the structure of the present invention. Yamanaka fails to teach or even suggest the technical concept of dynamic coercivity.

Therefore, because the structure employed in the present invention is different from that employed by Yamanaka, the properties and characteristics are <u>not</u> inherent to the structure and properties of the present invention. Yamanaka fails to teach or suggest the dynamic coercivity concept shown in Fig. 2 of the present invention. For these reasons, withdrawal of the §§ 102(e)/103(a) rejections of claims 1-17, 31-38, 41 and 43 is respectfully requested.

For the foregoing reasons, applicants believe that this case is in condition for allowance, which is respectfully requested. The Examiner should call applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 
Joseph P. Fox
Registration No. 41,760

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300 South Wacker Drive
Suite 2500
Chicago, Illinois 60606
Telephone: 312.360.0080
Facsimile: 312.360.9315

Customer No. 24978